

1.1 Introduction

This plan is an update of the 2004 City of Redmond Hazard Mitigation Plan (HMP). Although it is an update, this document has been redesigned so that it looks, feels, and reads differently than the original. This is due to several factors: new hazard information has become available that drives new definitions of risk, the City has matured and new capabilities are now available, and the new format will allow readers to more easily understand the content. In addition, the 2004 HMP included several action items that have been completed, creating an opportunity for developing new mitigation strategies. There were several aspects of the 2004 plan that were found to be deficient or insufficient to be included in the 2009 update. As a result, those items have been revised or removed and replaced with new items or strategies that better reflect the current conditions and environment in Redmond.

There is a variety of hazards that pose risks to people and property in Redmond. A hazards event becomes a disaster if vulnerabilities are high and capabilities insufficient. The extent of destruction resulting from an event is determined by the degree to which vulnerabilities cannot be protected. Redmond is at risk of both natural hazards, such as earthquakes, and human caused events, such as a hazardous material spill. In both cases, damages can be exacerbated by alterations to the natural environment.

This HMP focuses on long-term improvement and protection of the built and natural environments, infrastructure, communication and the livelihood of the community. This plan strives to reduce the financial impacts and make the community more resilient to inevitable hazards.

This HMP identifies the hazards that pose the greatest risk to the City of Redmond. The risk assessment section examines the four factors of risk: location, timing and duration, severity, and frequency. The results of this risk assessment serve as a basis to determine which hazards demand the most attention in this plan. Hazard specific vulnerabilities are addressed in Part 3, Risk Assessments.

This plan includes several hazards-related scenarios to help readers conceptualize a hazards event. The scenarios include probable secondary hazards. Through critical analyses and public input, this plan concludes with a set of long-term strategies and action items that call for more immediate attention.

1.2 Objectives, Strategies and Action items: 2004, 2006, 2009

Based on the goals of Redmond's Comprehensive Plan, the Project Team designed the following objectives, strategies and action items for Redmond's 2009 Hazards Mitigation Plan. This plan recognizes that hazardous events are unavoidable. Given the distribution of vulnerabilities across the City and the potential magnitude of

hazardous events, parts of Redmond may experience isolation. Therefore, the strategies outlined in this section are intended to both increase the self-sufficiency of Redmond residents and to increase the City's resiliency to minimize the duration of that isolation. The strategies revolve around the following concepts:

- Survival education for isolated individuals
- Robust emergency services
- Neighborhood isolation from utilities and infrastructure
- Retrofit of utilities
- Retrofit of historic building stock
- Reinforcement of transportation facilities and diversity modal alternatives

For a complete list of 2009 objectives, strategies, and action items related to strategies above, please refer to Part 4, Chapter 13, Mitigation Strategy.

Tables 1 and 2 list action items from 2004-2006 and the current status. The progression of topics, specificity and tone from 2004 to present indicates shifting levels of concerns residents place on potential hazards. Issues that are framing the 2009 update include:

- Disabled transportation networks during the 2008 winter storms
- A one-week power outage in mid-December of 2006 that resulted from the "Hanukkah Eve Wind Storm"
- Hurricane Katrina of 2005 and resulting reforms to FEMA guidelines

2006 Action Items and Current Status		
Rank	Top 10 action items	Current status
1	Identify alternative emergency government operations capability outside of high-risk areas	Ongoing: Very few permanent facilities set up.
2	Partner with King County, neighboring jurisdictions, and WSDOT to harden transportation routes	Complete: Routes hardened within Redmond. City staff is on three regional committees.
3	Strengthen relationships between corporations and vendors, including provisions for Emergency Operations Centers and mutual aid.	Ongoing
4	Reduce risk to the Olympic Pipeline and surrounding areas	Complete: No other politically acceptable options at this time.
5	Implement neighborhood-targeted risk reduction programs	Ongoing
6	Design events promoting business continuity	Ongoing
7	Adopt a Post-Disaster Recovery Plan for Old Town	No change. See #8 for further details.
8	Retrofit historic downtown structures	Ongoing
9	Support regional mitigation initiatives	Completed
10	Enhance existing GIS capabilities emphasizing hazard analysis	No change

Table 2 presents a review of the update of 2004 Action Items list, as included in the 2006 Hazards Mitigation Plan Update.

2004 Action Items and Current Status			
Rank	Activity	Description of Activity	Status
1	Development of Wellhead Protection Ordinance	Study of Redmond aquifers and sensitive areas. Development of regulations for protection of city wells and aquifers.	Complete
2	Wellhead 4 Redevelopment	Move Wellhead #4 200 feet east and re-drill. Project designed to guarantee water in the future.	Complete
3	Redevelopment of Wellheads 1, 2, & 3	Retrofitting of wells designed to guarantee water in the future.	Complete
4	Community Awareness Activities	Public education, presentations, support of Community Organizations Active in Disaster, Citizen Corps, and AmeriCorps. Support of countywide regional mitigation efforts.	Ongoing
5	Olympic Pipeline Setback Plan	Participation in development of plans and guidelines for the plan and City ordinance and Development Guide.	Complete
6	Earthquake Strapping	Tie-down of computer and communications equipment (Non-structural mitigation)	Pilot Program In Place
7	Generator Retrofit for the Public Safety Building	Increase emergency capacity from 50% to 100% in the Public Safety Building and Emergency Operations Center. Rerouted exhaust system for safety purposes.	Complete
8	Alternate EOC and Command Post capabilities	Purchased a Mobile Command Unit and installed communication equipment. Set up power and communication connections at strategic locations for alternate emergency operations centers.	Complete
9	Upgraded GIS Capabilities and Distributed Database	Hours assigned to Emergency Management and Hazards Mitigation, Risk Mapping from Management Information Services Division. GIS and distributed database capabilities added to the Emergency Operations Center as a virtual network.	Ongoing
10	Development of Central Receiving	Reduction of terrorism risk through the central processing of mail and packages in a secure location.	Awaiting Funding

1.3 Strengths, Weaknesses, Opportunities and Threats (SWOT)

A SWOT analysis was undertaken to clarify the physical, regional, political and economic factors that influence Redmond's vulnerabilities and capabilities.

1.3.1 Strengths

Redmond is well positioned in regional politics with staff members on three different regional councils. Redmond was largely developed after the 1963 construction of the Evergreen Point floating bridge; consequently, the majority of the buildings were erected within the past 50 years. Despite the recent economic downturn, the local economy remains strong.

Although the valley and hill terrain in Redmond creates areas that are vulnerable to each of the probable hazards, the variation in landscape increases the possibility that damage will be localized. In the event of any hazard, some of the neighborhoods will be less affected than others.

1.3.2 Weaknesses

The Downtown neighborhood and most of Redmond's emergency services are located within the valley, where the liquefaction and flood zones overlap. The Old Town area (with the highest concentration on unreinforced masonry buildings) is also located on these liquefiable, flood prone soils. Despite these factors, Redmond is currently focusing economic redevelopment and increasing residential density in this area. Furthermore, the valley separates the several neighborhoods located on the hills. Although the hill neighborhoods may be unaffected by flooding or an earthquake, isolation may result from network disruptions in the lowlands.

1.3.3 Opportunities

The next earthquake will likely destroy some of the older, non-historic buildings that were constructed prior to the adoption of the International Building Code. This will create an opportunity for new businesses to develop the area with lower demolition costs, leading to the urban revitalization of Redmond's Old Downtown.

Recent winter storms highlight the fact that hazards events cause isolation. This understanding can be used as a catalyst to increase development of pedestrian pathways, open green space, and mixed-use neighborhoods. Pedestrian pathways and diversified land use can provide alternative emergency transportation routes and create staging areas for emergency service provision.

1.3.4 Threats

Economic disruption in the event of a hazard is a major concern for the City of Redmond. Small businesses and vendors in Redmond support larger businesses, like Microsoft and Nintendo USA. Small businesses are particularly sensitive to unexpected losses of income. If a small business is forced to close for a few days, it may not be able to reopen. Redmond needs to take additional precautions to support this sector of the economy to avoid a ripple effect: echoing up from smaller businesses to the larger corporations in the area.

1.4 Local Capabilities Assessment and Integration

A capability is defined as a resource or capacity (human, physical, technical, informational, and/or financial) at all levels of government available for mitigation initiatives and efforts. Not only does the City of Redmond have a robust source of

internal capabilities, it also has many external capabilities offered through regional planning and coordination.

In **Table 3, Capabilities Inventory**, the following definitions are used:

- *Human capabilities*: people assigned to a department for the purpose of emergency management
- *Physical capabilities*: objects, like seismic ties to reinforce a building from an earthquake, available for emergency management
- *Technical capabilities*: software, hardware, equipment, or tools available for emergency management
- *Financial capabilities*: indicates that the department has or is in the process of acquiring financial resources


To ensure integration of available capabilities they are categorized into the four stages of emergency management: mitigation, preparedness, response and recovery. This classification provides a system to analyze capabilities on multiple levels: jurisdiction, organization and department, capability type, and stage of emergency management. Using this organizational structure, priority capabilities were extracted and a gap analysis was used to identify strengths and weaknesses of Redmond's collection of capabilities.

Based on the inventory of Redmond's capabilities, the top five capabilities of the City include:

- Local Hazardous Waste Management Program
- Redmond Critical Areas Ordinance 2005
- Redmond Downtown Transportation Master Plan
- Washington State Emergency Management Pre-Disaster Mitigation Grant Program
- Emergency Operating Services Agreement with King County Fire Protection District 34.

Table 3, Capabilities Inventory, is a reference matrix of government agency capabilities.

		Human	Physical	Technical	Information	Financial
City	Finance & Information Services					
	Fire Department					
	Human Resources					
	Parks and Recreation					
	Planning and Community Development					
	Police					
	Public Works					
	Communications					
	City Council					
	Department of Transportation					
	Emergency Management					
Regional	Eastside Public Safety Communications Agency					
County	Department of Transportation					
	Office of Emergency Management					
	Sheriff's Office					
	Fire Marshal Division					
	Evergreen Healthcare Hospital District					
	County Library System					
	Solid Waste Division					
	Seattle-King County Department of Public Health					
	King County Library System					
	Regional Public Information Network (RPIN)					
State	Department of Transportation					
	Emergency Management Division					
	State Patrol					
	Military Department					
	Urban Search and Rescue					
	State Building Code Council					
	National Guard					
Federal	Small Business Administration					
	FEMA					



- Preparedness
- Response
- Recovery
- Mitigation

Table 3: Capabilities Inventory

1.5 Related Documents

The following is an abbreviated list of documents most relevant to the 2009 City of Redmond Hazards Mitigation Plan. Specific references are included as footnotes throughout the HMP.

Redmond Comprehensive Plan

<http://www.redmond.gov/intheworks/redmond2022/planupdates.asp>

<http://www.redmond.gov/insidcityhall/documentlibrary.asp#Land>

2009 Comprehensive Flood Hazard Management Plan

<http://redmond.gov/insidcityhall/publicworks/stormwater/floodplan/default.asp>

Redmond 2006 Hazard Mitigation Plan

<http://www.redmond.gov/insidcityhall/planning/mitigation/mitigation.asp>

Redmond Critical Area Ordinance

<http://www.redmond.gov/intheworks/criticalareas/>

Redmond Recovery Plan

Contained in this plan as an Annex, see page 199

Redmond Comprehensive Emergency Management Plan

Currently being updated.

King County Hazard Mitigation plan

<http://www.kingcounty.gov/safety/prepare/EmergencyManagementProfessionals/PlansandPrograms/RegionalHazardMitigationPlan.aspx>

State of Washington Military Department, Emergency Management Division: Hazard mitigation Plan

http://www.emd.wa.gov/plans/washington_state_hazard_mitigation_plan.shtml

State of Washington Department of Ecology Shoreline Management Act

<http://www.ecy.wa.gov/programs/sea/SMA/index.html>

FEMA

<http://www.fema.gov/about/divisions/mitigation.shtm>

<http://www.fema.gov/plan/mitplanning/index.shtm>

1.6 City Council Adoption Resolution

FEMA requires that the HMP be adopted by City Council. Below is a draft resolution, the approved resolution should be inserted into the Final copy of the HMP.

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDMOND ADOPTING THE CITY OF REDMOND HAZARD MITIGATION PLAN (HMP) UPDATE FOR 2009-2014 AS APPROVED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

WHEREAS, Section 322 of the Federal Disaster Mitigation Act of 2000 requires local government agencies to develop and submit an All-Hazards Mitigation Plan in order to receive future Hazard Mitigation Grant Program Funds; and

WHEREAS, the City has knowledge and experience that the natural and man-made hazard events pose threats to lives and cause damages to property within the City of Redmond; and

WHEREAS, staff working with technical experts and the University of Washington have used available technologies, information, and historical documents to conduct a comprehensive risk reduction analysis process resulting in the preparation of the City of Redmond HMP Update; and

WHEREAS, the HMP Update formalizes the City's comprehensive efforts to make the City safer through preventing damage in the built environment; and

WHEREAS, the HMP builds on the objectives and actions established in the 2004 HMP and the City of Redmond's Comprehensive Plan; and

WHEREAS, the HMP has been reviewed by all relevant departments, boards, committees, and the Governor's Office of Emergency Services; and



WHEREAS, the HMP update was presented to Council and was available for public comment and review for the required time period; and

WHEREAS, approval of the HMP Update by FEMA constitutes formal completion of the plan and establishes eligibility for the City to pursue Hazard Mitigation funds.

NOW, THEREFORE, BE IT RESOLVED that the Redmond City Council does hereby adopt the City of Redmond Hazards Mitigation Plan in accordance with the Federal Disaster Mitigation Act of 2000 thereby meeting the eligibility requirements for the potential receipt of Hazard Mitigation Grant Funds.

1.7 FEMA Approval Letter

The FEMA Approval Letter will be inserted into this HMP once it is received.



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2.1 Community Profile

This plan is an update of the 2004 City of Redmond Hazard Mitigation Plan (HMP). Although it is an update, this document has been redesigned so that it looks, feels, and reads differently than the original. This is due to several factors: new hazard information has become available that drives new definitions of risk, the City has matured and new capabilities are now available, and the new format will allow readers to more easily understand the content. In addition, the 2004 HMP included several action items that have been completed, creating an opportunity for developing new mitigation strategies.

2.1.1 Location, Geography and Neighborhoods

The City of Redmond is located on the east side of Lake Washington. It is part of King County and within the greater Puget Sound region (see **Map 1, Regional Location Map**). The Sammamish River and Bear Creek pass through the City. The Cascade Range, a 1,000-mile long chain of volcanic mountains, which extends from northern California to southern British Columbia, is located to the east of Redmond.

The City topography includes hills and valleys. The soil in the valley is classified as alluvial soils, which will liquefy during an earthquake. Some of the hills surrounding the valley have steep slopes. Two large park facilities are adjacent to Redmond, Willows Run Golf Course to the north and Marymoor Park to the south (adjacent to Lake Sammamish).

There are ten neighborhoods in Redmond:

North Redmond borders the Sammamish Valley and is north of the Education Hill neighborhood. This neighborhood is located on one of the City's three hills (Education Hill). The area is residential, primarily single family housing. There are a few parcels in the neighborhood that are zoned commercial. This area could be isolated from services if transportation routes are limited due to a hazards event. Fire Station 17 is scheduled to begin construction in 2010-2011.

Education Hill is located in northeast Redmond. Education Hill is primarily low- to moderate-density residential. There are very few services that are currently available in the neighborhood and they are likely to become isolated in the event of a hazard. There are numerous schools and open space that could be utilized for emergency response and recovery.

Sammamish Valley is located in the valley floodplain. The area is characterized by large amounts of open space, parks and dense residential housing. This neighborhood is located both in the floodplain and the liquefaction zone.

Willows and Rose Hill is located in northwest Redmond. This is a hill neighborhood

that is primarily residential. The Olympic Pipeline runs through this neighborhood.

Overlake neighborhood is the second commercial center, after Downtown, in Redmond. It is located on a hill in the southwest region of Redmond. This area has residential, commercial and business parks. Microsoft is located in Overlake neighborhood. This location may provide opportunities for emergency operations, but it is located very close to the Seattle Fault and would experience extreme ground shaking in the case of an earthquake along the Seattle Fault.

Grass Lawn is located north of Overlake on the western side of Redmond. This hill neighborhood is mostly low- to moderate-density residential.

Viewpoint is Redmond's lakefront neighborhood. It is located along the Sammamish Lake, east of Overlake. The neighborhood is primarily low- to moderate- density residential. Along the lake there are some multi-family buildings. Home values are especially high in Viewpoint. There are several schools, churches and open space.

Bear Creek is located in the central eastern river valley in Redmond. This is the least populated of Redmond's neighborhoods and has the most diversity in zoning. There are residential areas to the north and west sides of the neighborhood. The residential area includes a mobile home park and the largest retirement community in the City. There is some community retail in the north. The central area has resource lands. South of Bear and Evans creeks provides commercial and industrial land.

Downtown is located in central Redmond on the valley floor, which is subject to both floods and liquefaction. City services are located in the downtown area, including City Hall, the primary Fire Station, Police Station and most of the commercial retail. Dense transit-oriented development has been encouraged in this area. This area has dense residential housing.

Southeast Redmond is partially located on the hill and partially in the valley. This neighborhood has residential, commercial and manufacturing parks.

Map 2, Overview of City of Redmond Neighborhoods, shows the location of the neighborhoods.

2.1.2 Demographics

According to the US Census, the City of Redmond is home to 51,530 residents. The City of Redmond currently covers over 16.6 square miles. Since 2000, the population has increased from 45,649 to 51,530 (see **Map 3, Population Density by Census Block**).

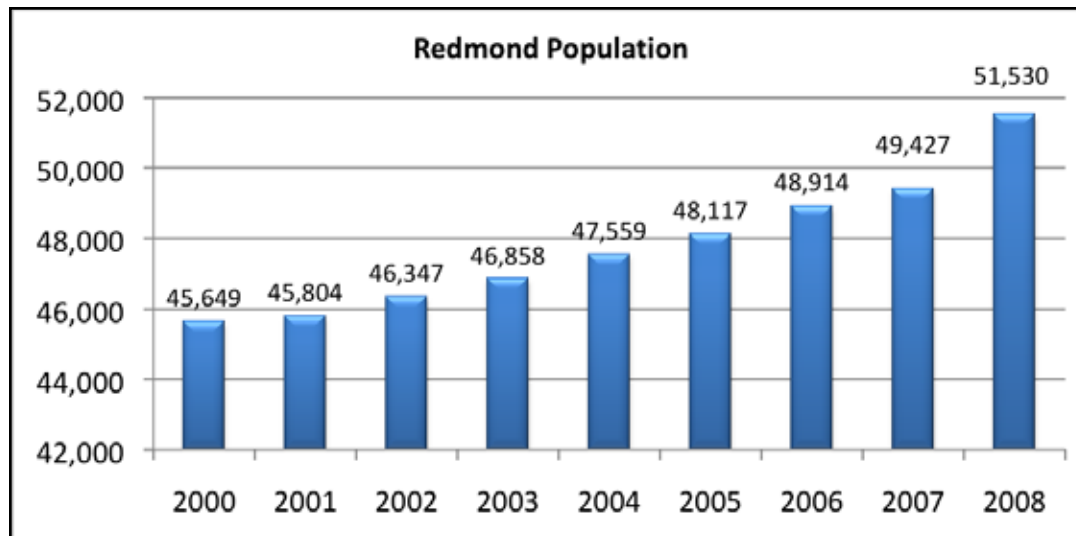


Figure 1: The City of Redmond Population Growth, 2000-2008.²

The majority of residents are between the ages of 18 and 64. The percentage of residents within this age group has increased since 1970 (see **Figure 2, Residents Age Group**, change by decade). According to data from 2007, just over 20% of the City of Redmond's population is under 18, approximately 70% of residents are between 18 and 64, and just under 10% are 65 and older.

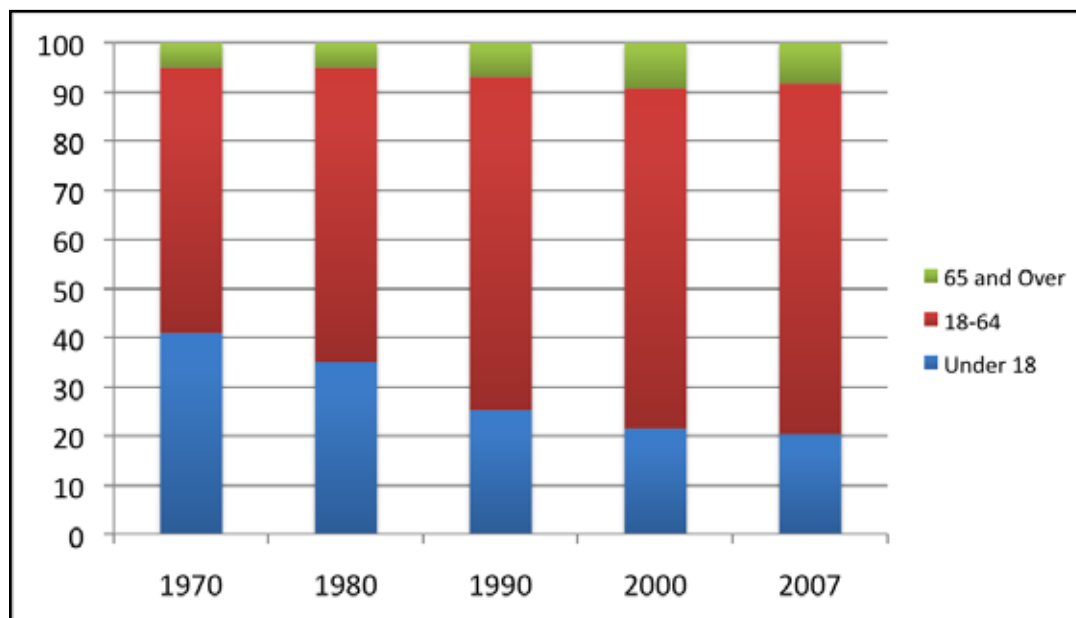


Figure 2: The City of Redmond Residents Age Group, change by decade, 1970-2007.³

² Data from US Bureau of the Census Factfinder, http://factfinder.census.gov/servlet/GCTTable?_ds_name=PEP_2007_EST&-mt_name=PEP_2007_EST_GCTT1R_ST9S&-geo_id=04000US53&-format=ST-9&-

³ Data from US Bureau of the Census, 1970 to 2000, "2005-2007 American Community Survey Profile Highlights," http://factfinder.census.gov/servlet/ACSSAFFacts?_event=Search&geo_id=01000US&-geoContext=01000US&-street=&-county=redmond&-cityTown=redmond&-state=04000US53&-zip=&-lang=en&-sse=on&ActiveGeoDiv=geoSelect&-useEV=&pctxt=fph&pgsl=010&-submenuId=factsheet_1&-ds_name=ACS_2007_3YR_SAFF&-ci_nbr=null&-qr_name=null&-reg=null&-keyword=&-industry=

2000

14.6%

81.8%

White

Black

American Indian/
Alaska Native

Asian

Other

2007

19.3%

75.6%

White

Black

American Indian/
Alaska Native

Asian

Other

A stacked bar chart showing the number of people who speak English well (red) versus those who don't speak English very well (blue) across four language groups: Spanish, Other Indo-European, Asian/Pacific Islander, and Other. The y-axis represents the number of people, ranging from 0 to 6,000 in increments of 1,000. The x-axis lists the language groups. The data is as follows:

Language Group	don't speak English 'very well'	also speak English well
Spanish	1,062	1,832
Other Indo-European	1,459	4,189
Asian/Pacific Islander	2,474	3,474
Other	244	244

4 Data from US Bureau of the Census, decades 1970 to 2000, "2005-2007 American Community Survey Profile Highlights, 2007", http://factfinder.census.gov/servlet/ACSSAFFacts?_event=Search&geo_id=01000US&geoContext=01000US&_street=&_county=redmond&_cityTown=redmond&_state=04000US53&_zip=&_lang=en&_sse=on&ActiveGeoDiv=geoSelect&_useEV=&pctxt=fph&pgsl=010&_submenuId=factsheet_1&ds_name=ACS_2007_3YR_SAFF&_ci_nbr=null&q_r_name=null%3Dnull%3Anull®=null%3Dnull%3Anull%3Anull&_keyword=&_industry=

Introduction and Adoption

The City of Redmond is comprised of mainly residential and business structures. Of the residential structures, the majority are detached single units (39%) (see **Map 4, City of Redmond Commercial and Residential Buildings**). Second most common are structures that accommodate ten to nineteen units (15%) with three- to four-unit structures the third most common type (14%) (see **Figure 5, Number of Housing Units**).

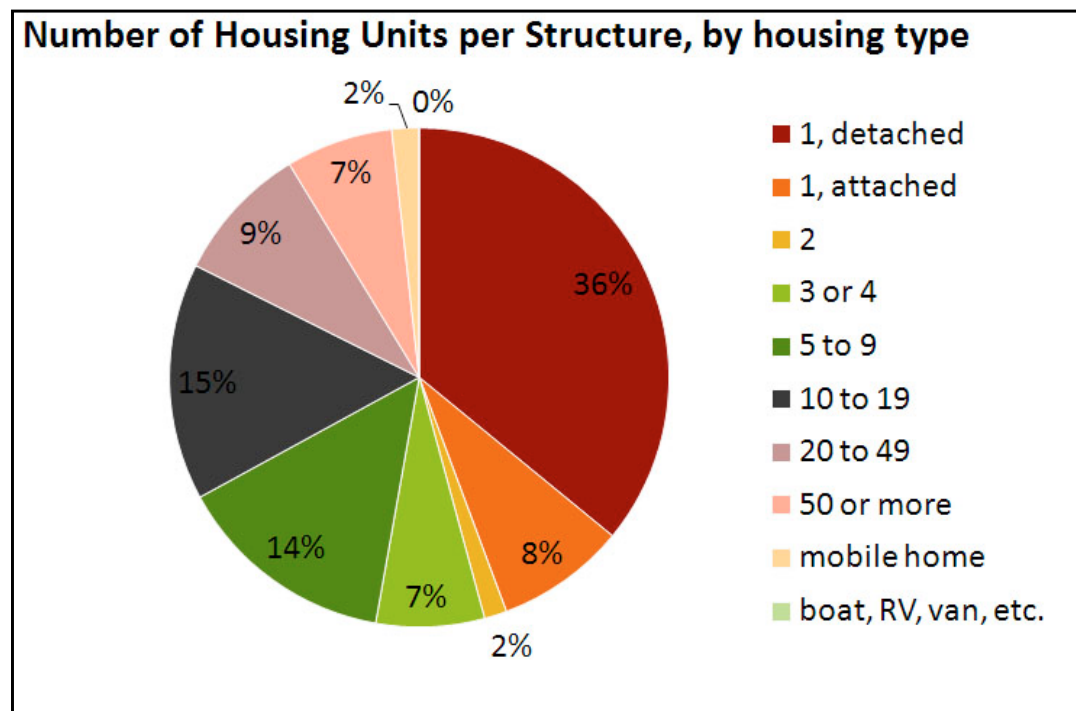


Figure 5: Proportion of housing unit types classified by number of housing units per structure.⁶

2.1.3 Household Income and Education

According to the City of Redmond income data from 2005 - 2007, the median income of households in the City of Redmond was \$82,349. About 89% of the households received earnings, and the average income from earnings was \$90,677; other income sources include Social Security income (13.9%) and retirement income (9.8%). These income sources are not mutually exclusive; some households received income from more than one source.⁷

The City of Redmond is part of the Lake Washington School District, which also includes Kirkland and parts of Sammamish and Woodinville. The public schools in the City of Redmond include several elementary schools, junior high schools, and Redmond High School. Three private schools offer secondary education: the Overlake School (secular), the Bear Creek School (Christian - primary and secondary), and the Conservatory High School (for performing arts students). Ninety-five percent of Redmond's adult population holds a high school diploma or higher, which is

6 Data from US Bureau of the Census, "2005-2007 American Community Survey, Housing Characteristics," http://factfinder.census.gov/servlet/ADPTable?_bm=y&-geo_id=16000US5357535&-qr_name=ACS_2007_3YR_G00_DP3YR4&-context=adp&-ds_name=&-tree_id=3307&-_lang=en&-redoLog=false&-format=.

7 Ibid.

significantly higher than the Washington State average.

2.1.4 Workforce

In the City of Redmond's economic survey 2005 - 2007, there were 32,187 people in the labor force, 72.3% of the population 16 years and over.⁸ Moreover, the unemployment rate in Redmond was 3.5%. In the City of Redmond's occupational distribution "management, professional and related occupations" and "sales and office occupations" are primary occupations in Redmond. The former accounts for 60.7% and the latter for 20.2% of total occupations. Approximately 9.3% of employees in Redmond are in the service sector.

Table 4, Redmond's Main Industries of 2002, provides a list of the key industries in Redmond. The information industry is very important to Redmond, as exhibited by the high number of paid employees in this sector. Manufacturing and wholesale trade are also important industries.

NAICS	Description	Establishments	Sales, receipts or shipments (\$1,000)	Annual payroll (\$1,000)	Paid employees
31-33	Manufacturing	177	2,264,588	416,018	8,394
42	Wholesale trade	267	5,091,283	267,102	4,719
44-45	Retail trade	255	673,872	92,396	3,442
51	Information	79	N ¹	D ²	(25k-49k)
54	Professional, scientific, & technical services	318	443,045	202,625	3,545
56	Administrative & support & waste management & remediation service	101	236,924	148,523	3,315
62	Health care & social assistance	186	287,820	98,756	3,443
72	Accommodation & food services	196	160,857	51,683	3,532

Table 4: Redmond's Main Industries in 2002

Source: U.S. Census Bureau, "Redmond City's Summary Statistics by 2002 NAICS," <http://www.census.gov/econ/census02/data/wa/57535.HTM>.

1. Not available 2. Withheld to avoid disclosing data of individual companies; data are included in higher level totals

2.1.5 Economic Trends

The City of Redmond is well known as a center of technology and the location for a number of nationally known high tech and biomedical companies. Among these are Microsoft, Nintendo, AT&T and Physio-Control.⁹ In addition, Redmond Town Center is a large downtown retail center, which offers numerous shops, restaurants, movie theaters, special events, and live performances by a repertory theatre company and other arts-related groups.

⁸ U.S. Census Bureau, "2005-2007 American Community Survey-Redmond Economic Characteristics," http://factfinder.census.gov/servlet/ADPTable?_bm=y&-geo_id=16000US5357535&-qr_name=ACS_2007_3YR_G00_DP3YR3&-ds_name=ACS_2007_3YR_G00_&-lang=en&-sse=on.

⁹ The City of Redmond, "Redmond's General Information," <http://www.redmond.gov/aboutredmond/general.asp> (Accessed on February 20, 2009).

According to the City of Redmond's Comprehensive Plan, in 1993 employment within the City was 39,000; by 2004 employment had doubled to 79,500.¹⁰ This significant growth in jobs places Redmond as the fourth largest employment center within the four-county central Puget Sound area. While much of this growth has been in software and businesses services, there has also been significant growth in communications and retail. Despite a decline in traditional manufacturing, the City of Redmond has experienced a net job increase almost every year since 1993.

In terms of future projections, the Puget Sound Regional Council has forecasted that jobs could increase within Redmond to 100,000 in 2020 and 111,000 by 2030. The City of Redmond plans to accommodate up to a total of 106,000 jobs by the year 2022, which is consistent with the region's 20-year employment target.¹¹

2.1.6 Transportation

The City of Redmond is connected to the greater Puget Sound region by two major state highways, Highway 202 and Highway 520. Highway 202 runs mainly north and south from south east of Redmond into the center of the City and up through the north. Highway 520 runs adjacent to the south side of the City of Redmond and connects with both Redmond Way and Avondale Road NE. Other major arterials in Redmond include: 166th Avenue NE, 154th Avenue NE, 148th Avenue NE, NE 116th Street, NE 128th Street, NE 124th Street, NE 104th Street, NE 90th Street, NE 85th Street, Cleveland Street, Redmond Woodinville Road, and West Lake Sammamish Parkway NE (see **Map 5, City of Redmond Motorized Transportation Network**).

The City has made major investments in the pedestrian network. In March 2009, the City of Redmond received a \$170,000 grant from the Highway Safety Improvement Program to improve crosswalks within Redmond.¹² Sidewalk additions are also slated for the south side of NE 90th Street between Willows Road and 154th Avenue NE. The City of Redmond has an extensive and well connected sidewalk system.

The bicycle network in the City of Redmond supports bicycle commuting with over 80 miles of bicycle lanes. The City provides bike-specific paved pathways, unpaved pathways/trails, shared pedestrian and bike pathways, bike lanes on roads with extra wide shoulders, and 'sharrow' traffic streets with identified traffic levels (e.g. medium and high).¹³ To accommodate recreational riding, the commuter routes have connections with the Sammamish River trail, which runs to the north of Redmond (see **Map 6, City of Redmond Non-Motorized Transportation Network**).

¹⁰ City of Redmond, "City of Redmond Comprehensive Plan," <http://www.codepublishing.com/WA/Redmond/CompPlan/HTML/redmondcomp07.html>.

¹¹ Ibid.

¹² The City of Redmond, "Press Release: Construction at Redmond Way and Cleveland Street", <http://www.redmond.gov/aboutredmond/pressreleases/pr0918.asp>.

¹³ The City of Redmond Bicycling Guide, "Bike Map," <http://www.redmond.gov/cityservices/maps/bikemap.pdf>.

2.1.7 Critical Facilities

A variety of critical facilities are found in the City of Redmond. Within the context of the Hazards Mitigation Plan, critical facilities are defined as a building or infrastructure that is central in supporting the provision of services to and by the City of Redmond. FEMA provides a definition of critical facilities by listing examples including hospitals, fire stations, police stations, storage of critical records, and similar facilities.¹⁴ Redmond is currently scheduled to repair and/or replace vulnerable portions of its sewer and water lines in the next three years, providing an opportunity for seismic and anti-flooding upgrades. In recent years seismic upgrades have been done to the most vulnerable water tanks within the City limits. Although there are still a few water tanks that are not seismically reinforced, there is no current plan to upgrade them.

Other types of non-public critical facilities are comprised of the many high-tech industry headquarters in the City of Redmond. Private companies such as Microsoft, Nintendo of America, Honeywell, General Dynamics Airborne Electronic Systems, and Medtronic Emergency Response Systems can be classified as critical facilities to the City of Redmond because of their size and influence on the local and regional economy. The City of Redmond reached out to the Chamber of Commerce to create an education plan for all business owners with regard to emergency preparedness. In addition, neighborhood services such as schools, churches, childcare facilities, the library, and community centers are considered critical facilities. Lastly, systems that provide services to residents and businesses in the City of Redmond are another set of critical facilities. This last set includes links and facilities in the transportation network that connect the City of Redmond to neighboring cities (e.g. SR-520, Redmond Way, and 164th Avenue NE) (see **Map 7, City of Redmond Community Facilities**).

2.2 Community Vision

The following “Goals, Vision, and Framework Policy Elements” section through the “Vision Statement” section paraphrases the Redmond Comprehensive Plan and cross references the previous HMP (2004). The 2004 Redmond HMP quotes these sections directly from the 2004 contemporary Comprehensive Plan with one modification, adding the contemporary council members names. For the complete version of the following “Goals, Vision, and Framework Policy Elements” section, please see the current Redmond Comprehensive plan.¹⁵

2.2.1 Goals, Vision and Framework Policy Element

Redmond’s Comprehensive Plan is a reflection of the long-term values and visions residents have for Redmond over the next 20 years. This section outlines the goals,

¹⁴ FEMA, “FEMA: Critical Facility,” http://www.fema.gov/plan/prevent/floodplain/nfipkeywords/critical_facility.shtm#0.

¹⁵ The City of Redmond, “Comprehensive Plan,” <http://www.redmond.gov/intheworks/redmond2022/planupdates.asp>.

visions, and policies included in that plan.

The goals and framework policies are not listed in priority order, and need to be viewed as a whole, balanced over time. One goal or value shall not be pursued to the exclusion of the others.

2.2.2 Goals for Redmond

- To conserve agricultural lands and rural areas, and to protect and enhance the quality of the natural environment.
- To retain and enhance Redmond's distinctive character and high quality of life, including an abundance of parks, open space, good schools and recreational facilities.
- To emphasize choices in housing, transportation, stores and services.
- To support vibrant concentrations of retail, office, service, residential, and recreational activity in Downtown and Overlake.
- To maintain a strong and diverse economy, and to provide a business climate that retains and attracts locally owned companies as well as internationally recognized corporations.
- To promote a variety of community gathering places and diverse cultural opportunities.
- To provide convenient, safe and environmentally friendly transportation connections within Redmond, and between Redmond and other communities for people and goods.
- To remain a community of good neighbors, working together and with others in the region to implement a common vision for Redmond's future.

2.2.3 Our Future Vision for Redmond in 2022

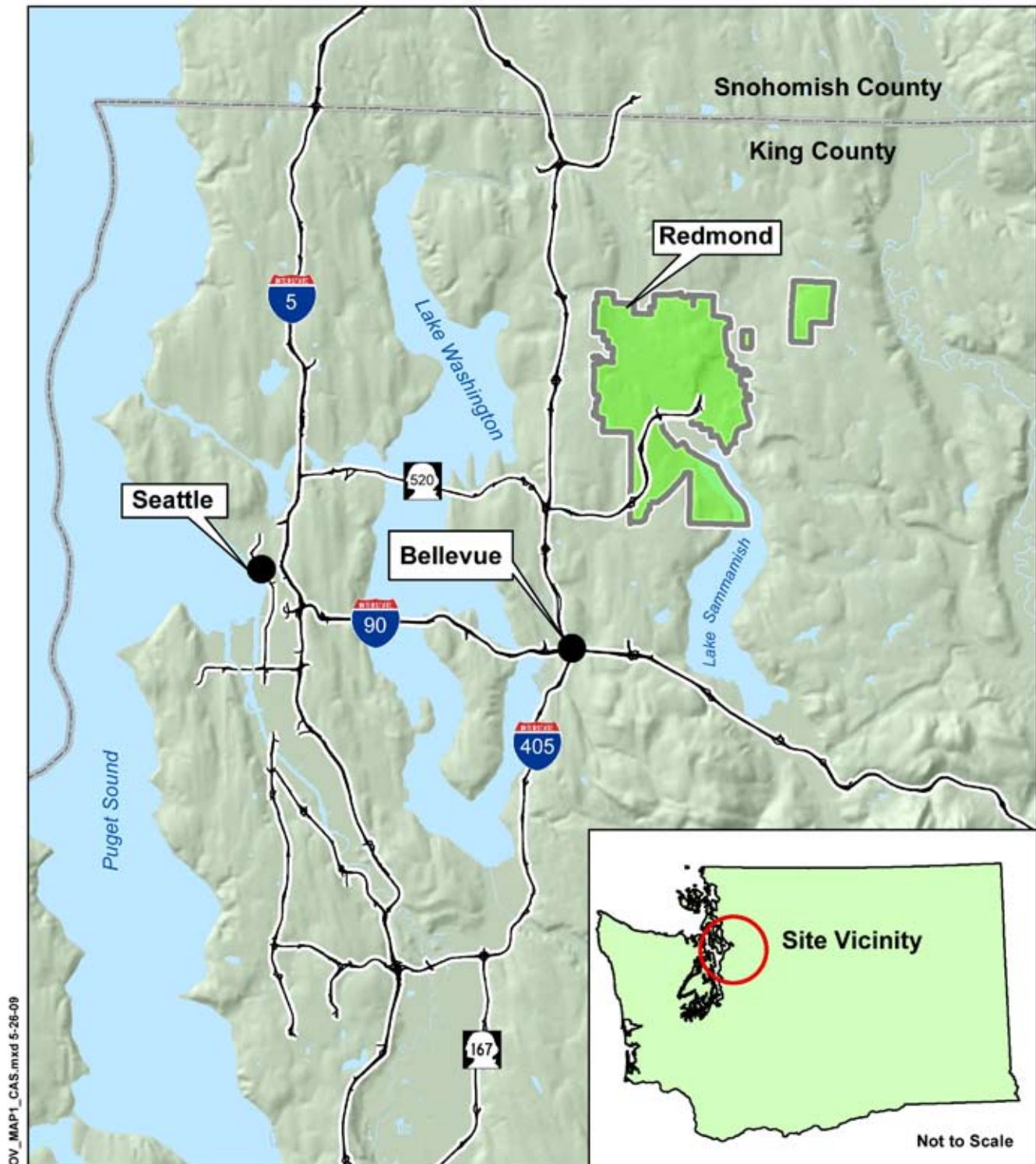
What would Redmond be like as a place to live, work, or visit if the community's values were achieved? The vision statement describes Redmond in the year 2022 if the Comprehensive Plan were implemented.

2.2.4 Vision Statement

- Downtown is an outstanding place to work, shop, live and recreate.
- Old Town thrives as a focus for retail activity that attracts pedestrians.
- Overlake has become recognized as a regional urban center.
- Residential neighborhoods are treasured for their attractiveness, friendliness, diversity, safety, and quietness.
- A strong economy and a diverse job base.
- Neighborhood and community parks contribute to a high quality of life.
- Energy efficient and environmentally sound transportation systems.
- People spend less time traveling and more time where they want to be.
- Infrastructure and services have been provided to meet the needs of a growing population as well as to correct existing deficiencies.

- Redmond in 2022 has maintained a very green character.
- Redmond has reached its ultimate size, having annexed all remaining territory in its Potential Annexation Area so that residents may receive a full range of urban services.
- Redmond is an integral member of the regional planning community.
- Though the City has experienced growth and change during the past 20 years, Redmond has maintained its distinctive character.
- Community gathering places are found throughout the City.
- Care has been given to preserve elements of the natural environment.
- The cost of maintaining Redmond's quality services and facilities is borne equitably.
- Many citizens actively participate.
- In 2022, as in 2003, Redmond is a community of good neighbors.

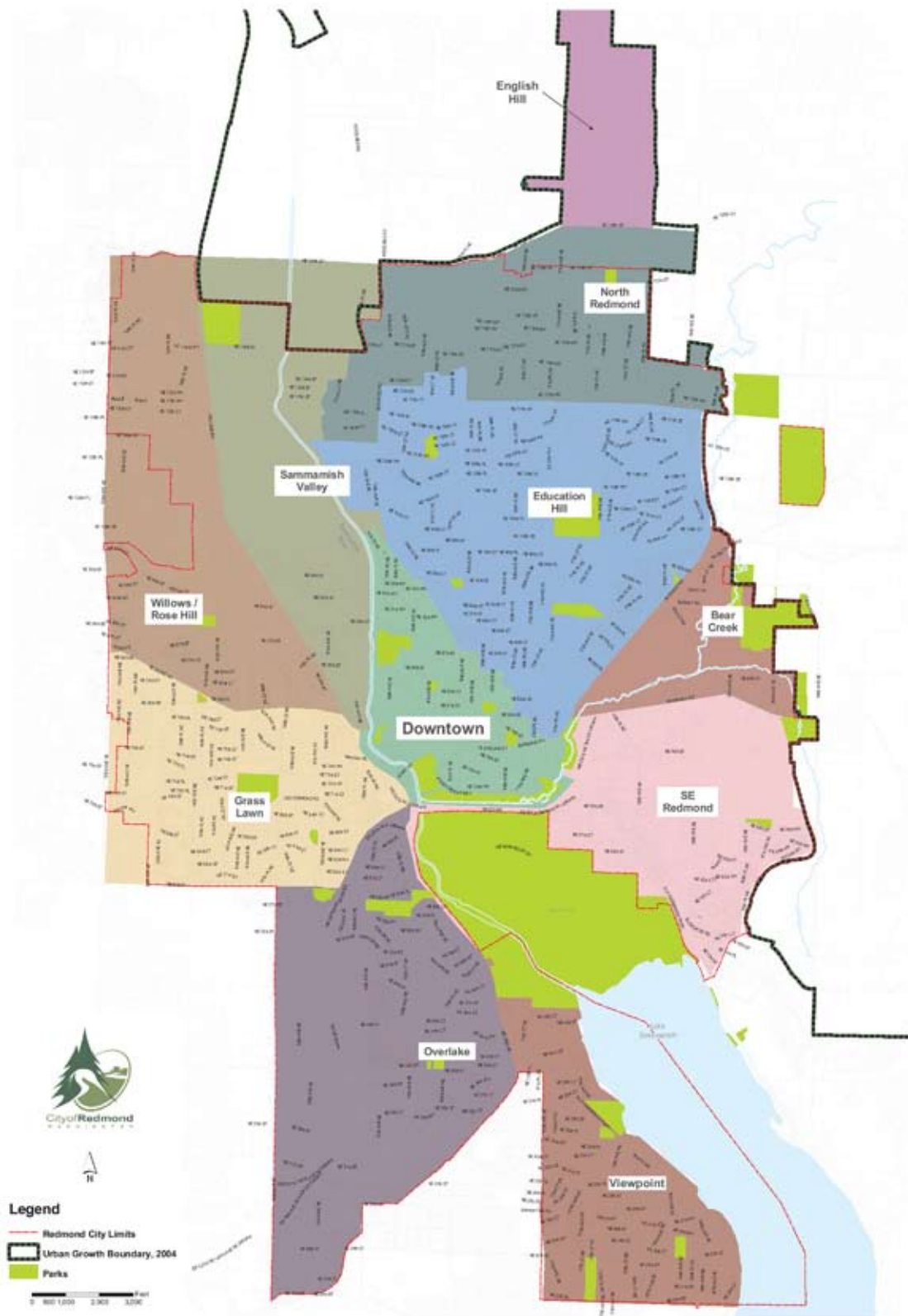
Regional Location Map



Sources: State of Washington, King County, and USGS

Approximate Scale in Miles
3 1.5 0 3

Map 1: Regional Location Map

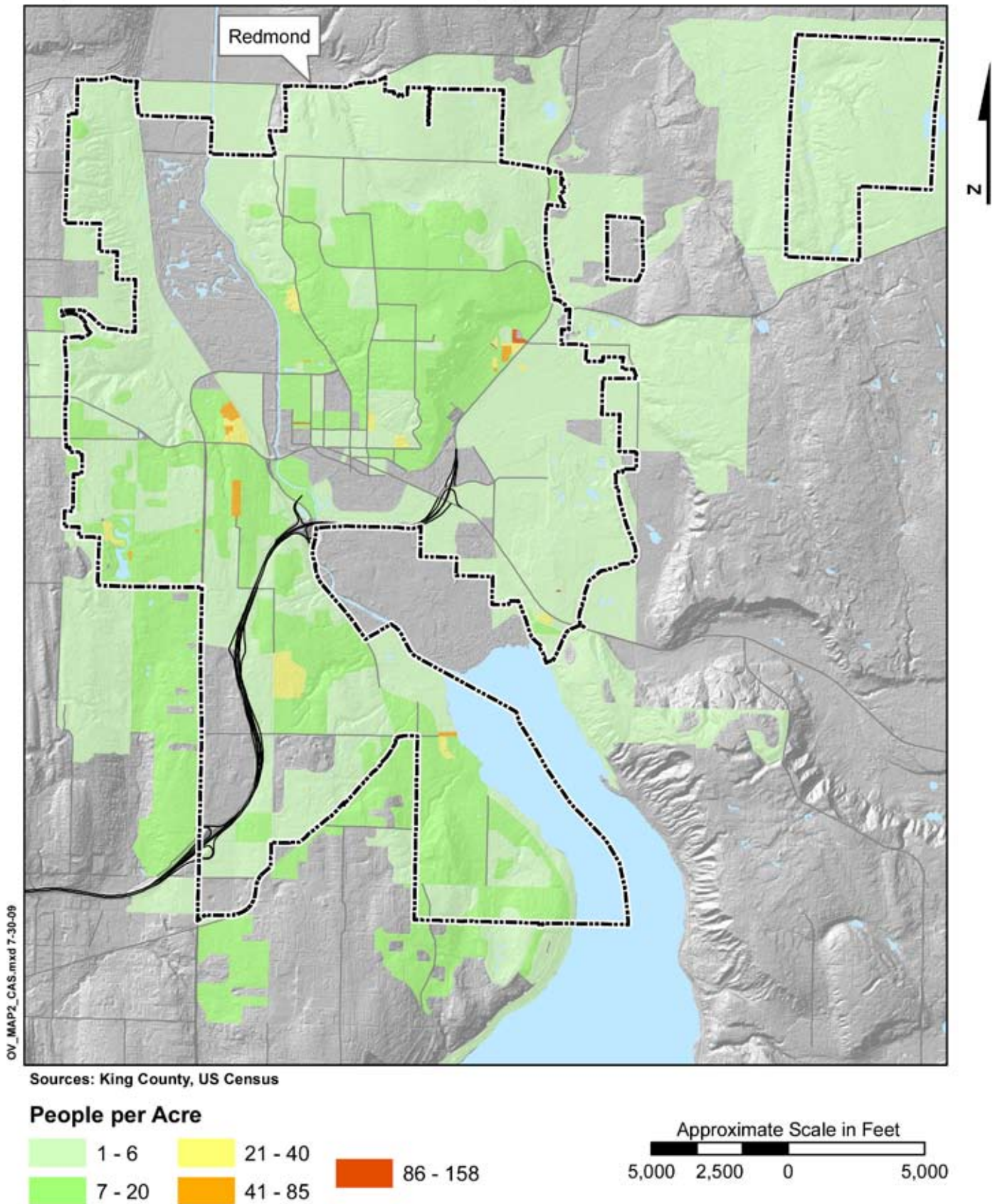


NEIGHBORHOODS City of Redmond

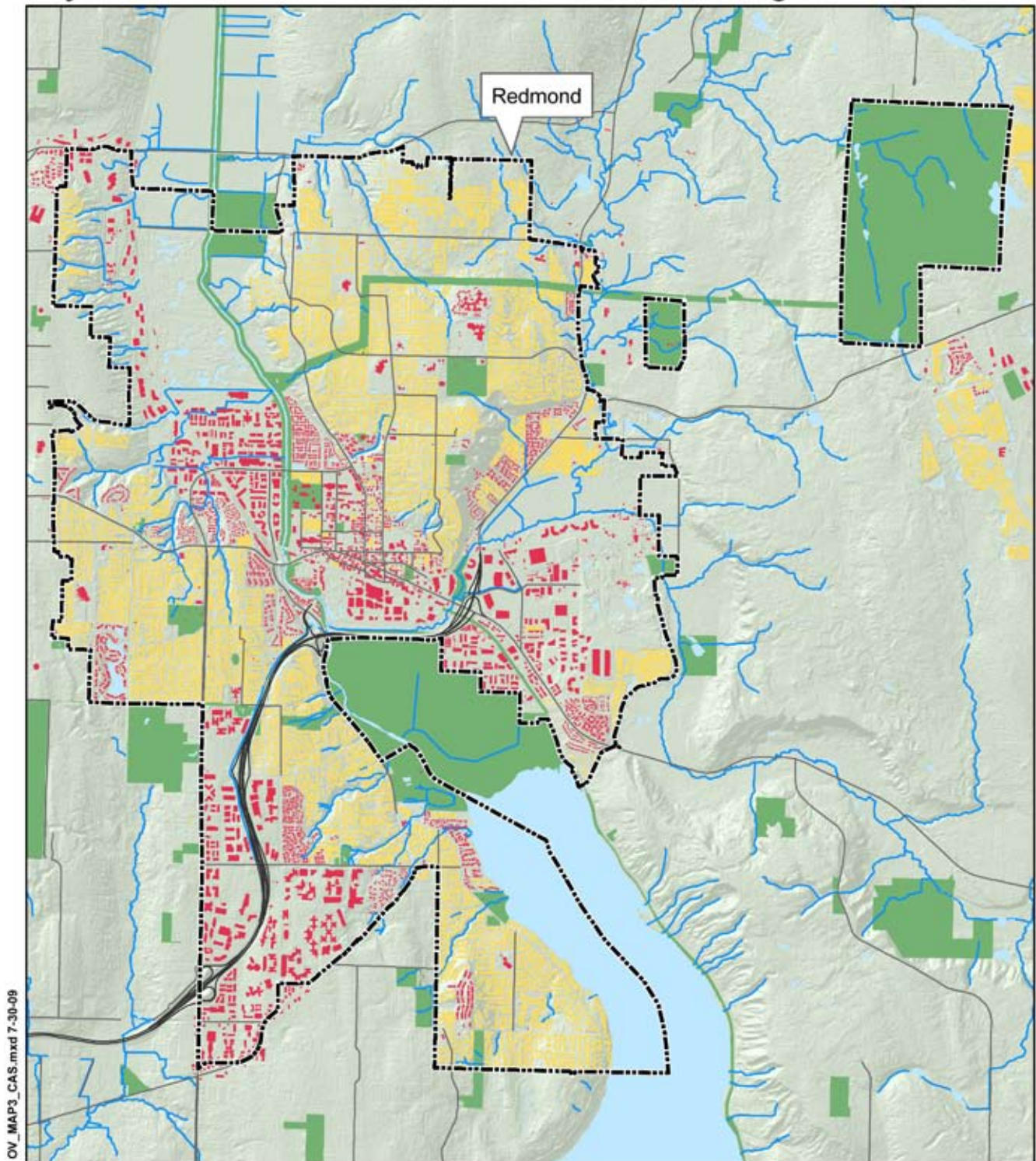
(generated August 2007)

Map 2: City of Redmond Neighborhoods

Taken from: <http://redmond.gov/cityservices/maps/neighborhoods2007.pdf>

City of Redmond Population Density by Census Block

Map 3: City of Redmond Population Density by Census Block

City of Redmond Commercial and Residential Buildings

Source: King County

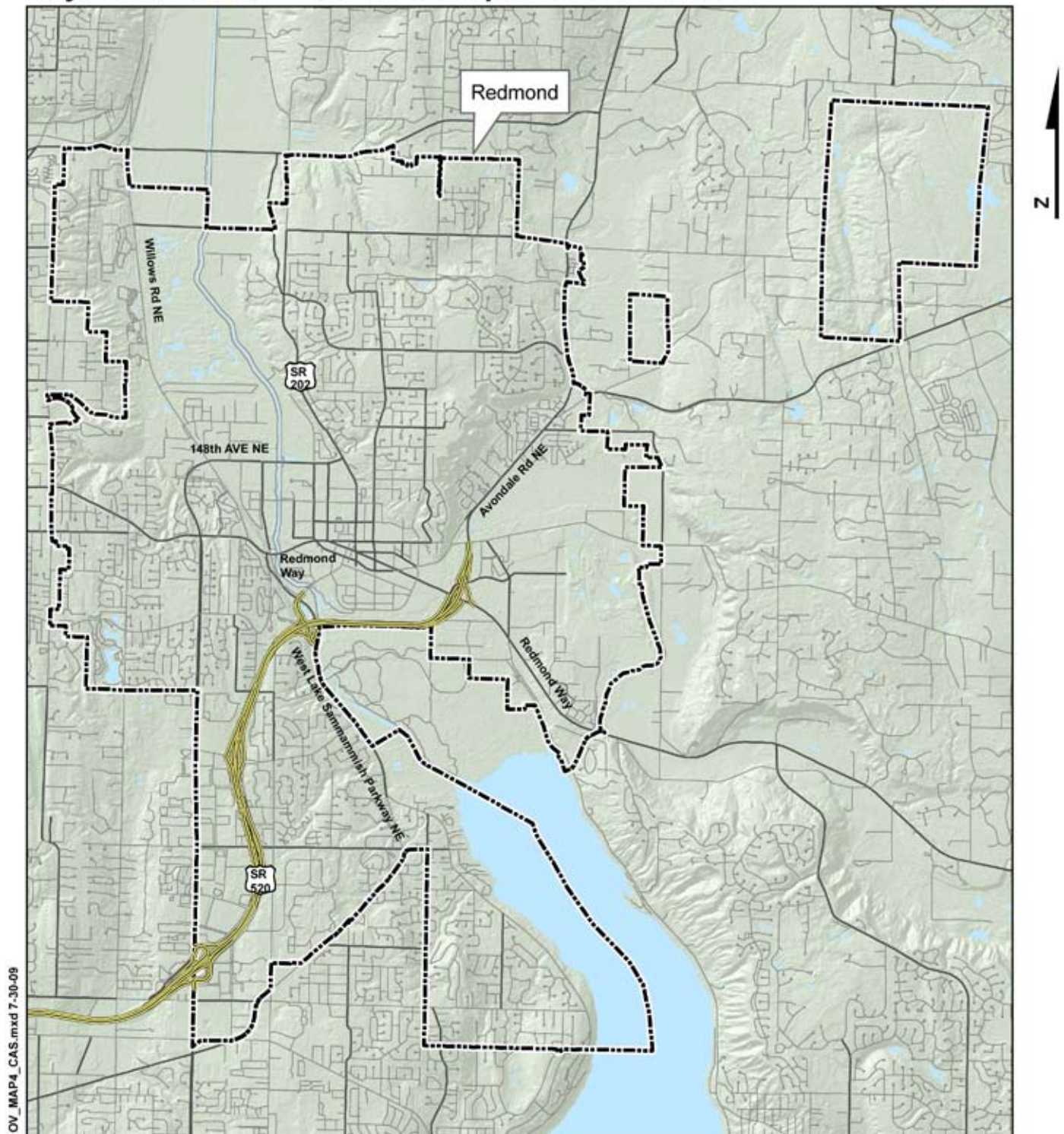
- Commercial Buildings
- Residential Buildings
- King County Parks

Approximate Scale in Feet

5,000 2,500 0 5,000

Map 4: City of Redmond Commercial and Residential Buildings

City of Redmond Motorized Transportation Network



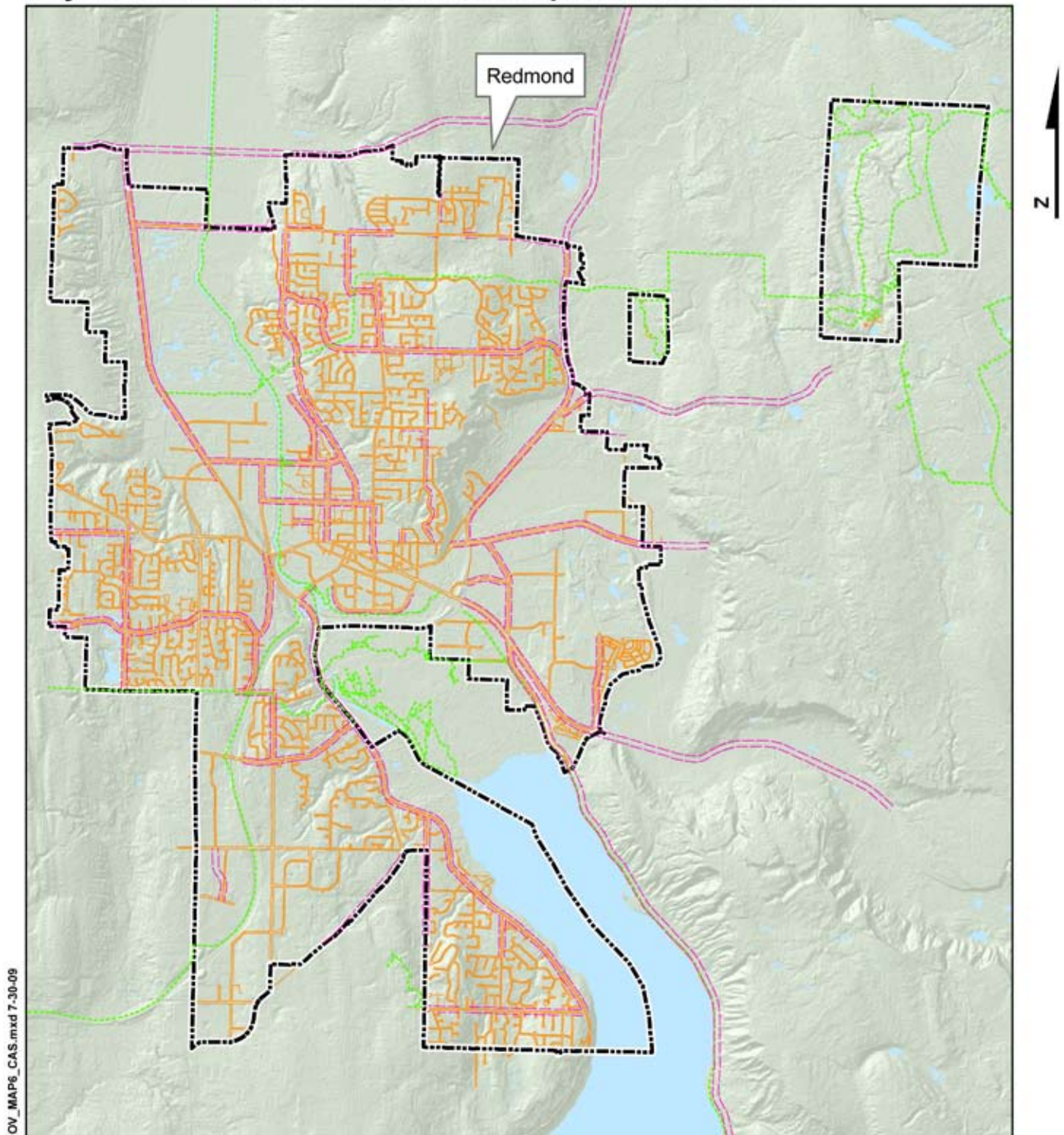
Sources: King County, Redmond

- Freeway
- Local Arterials
- Main Arterials

Approximate Scale in Feet
5,000 2,500 0 5,000

Map 5: City of Redmond Motorized Transportation Network

City of Redmond Non-Motorized Transportation Network



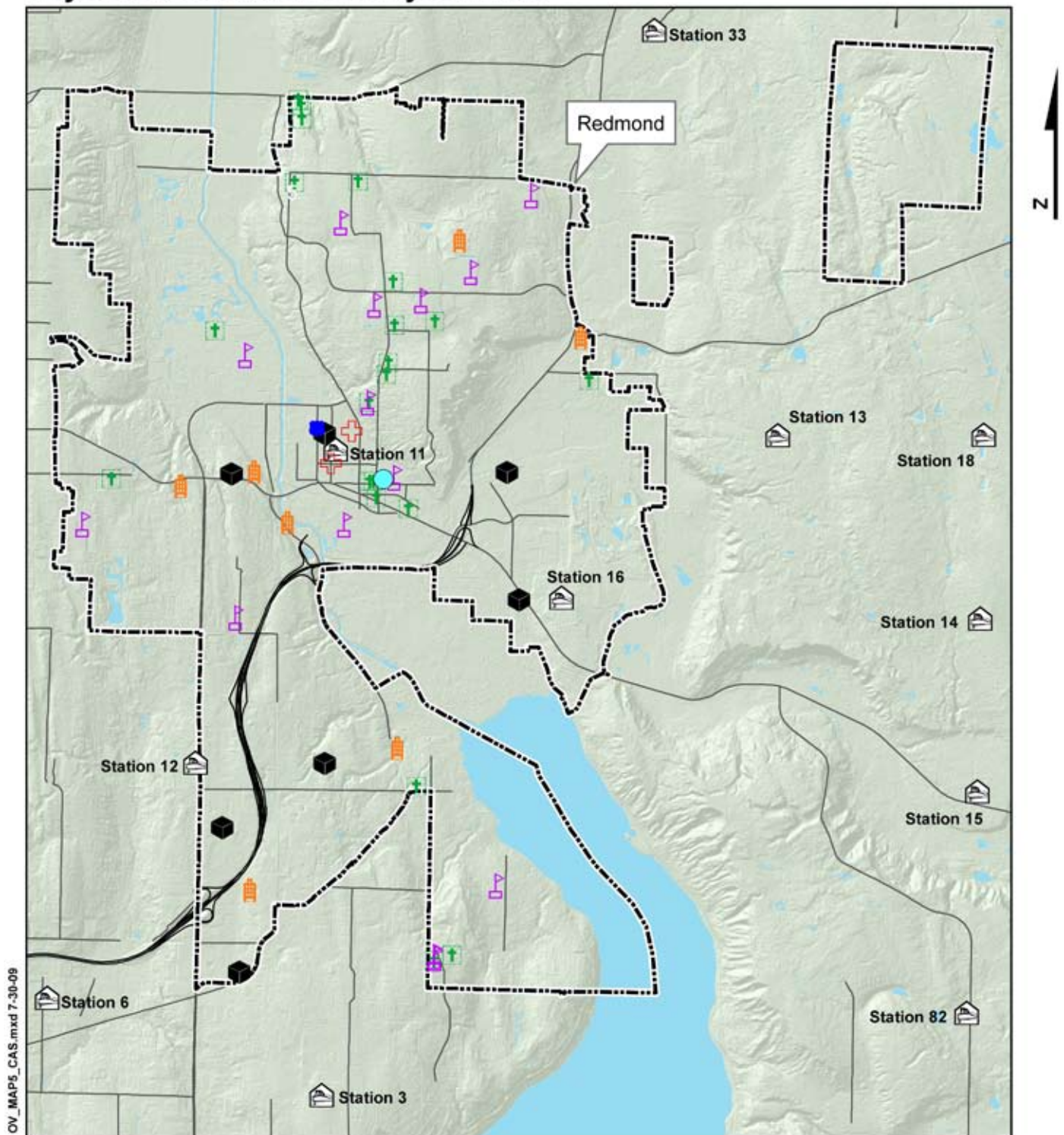
Sources: King County, Redmond

- Bicycle Lanes
- Trails
- Sidewalks

Approximate Scale in Feet
 5,000 2,500 0 5,000

Map 6: City of Redmond Non-Motorized Transportation Network



City of Redmond Community Facilities



Sources: King County, City of Redmond



Map 7: City of Redmond Community Facilities



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